

SYS 101

Fundamentals of Systems Planning, Research, Development and Engineering

This course is a technically rigorous, comprehensive introduction to systems engineering and the various technical management and technical processes involved in its application. Based around the 16 systems engineering processes outlined in the *Defense Acquisition Guidebook (DAG)*, SYS 101 provides the essential foundations needed for Systems Planning, Research, Development and Engineering (SPRDE) careerists and others to effectively participate in the application and the management of DoD systems engineering processes and their activities.

Objectives: Students who successfully complete this course will be able to:

- more capably interact with program integrated product teams regarding the proper application of systems engineering;
- understand how the eight technical processes can be applied in top-down development and bottom-product realization;
- understand how the eight technical management processes are used to control and assess systems engineering activities; and
- describe the role of a systems model, the work breakdown structure (WBS), standards, top-down design, bottom-up product realization, and the Systems Engineering Plan (SEP).

Who Should Attend: This course is part of the Level I certification training requirement for the Systems Planning, Research, Development and Engineering—Systems Engineering (SPRDE-SE) career field. Additionally, as an in-depth introduction to Systems Engineering and its Technical Management and Technical Processes, it is suitable for personnel in technical management and program management positions who want to understand more about Systems Engineering and the details of its processes.

Prerequisite: ACQ 101

Length: This is a non-Resident, self-paced course available through the Internet. Students must complete the course within 60 calendar days of the start date.

Method of Delivery: Distance Learning—See “Course Offerings” on page 10



PDS Code: J01

SYS 202

Intermediate Systems Planning, Research, Development and Engineering, Part I

This journeyman-level course provides an understanding of how the DoD systems engineering (SE) processes can be applied within the context of the activities illustrated on the DAU *Integrated Defense Acquisition, Technology, & Logistics Life Cycle Management Framework* chart. Course content includes the scope and role of SE and its key technical inputs and outputs; the key aspects of technical baselines and the role of technical reviews; and important design considerations.

Objectives: Students who successfully complete this course will be able to:

- outline SE activities in the context of the various life cycle phases of the Defense acquisition framework;
- understand the scope of SE and its relationship to other program management functions across the life cycle;
- list important design considerations and their impacts; and
- understand the linkage of technical reviews to technical program management.

Who Should Attend: This course is part of the Level II certification training requirement for the Systems Planning, Research, Development and Engineering—Systems Engineering (SPRDE-SE), career field. Additionally, members of other career fields who require an understanding of how Systems Engineering is applied to systems acquisition and sustainment will benefit from this course.

Prerequisites: SYS 101, ACQ 201B, and access to the DAU *Integrated Defense Acquisition, Technology, & Logistics Life Cycle Management Framework* chart, which is available at <https://acc.dau.mil/IFC/download.pdf.htm>.

Recommended: At least 2 years of technical experience in an acquisition position to include industry or government equivalent from among the following career fields/paths: SPRDE-SE; SPRDE-Science and Technology Manager; Information Technology; Test and Evaluation; Production, Quality, and Manufacturing; Program Management; or Life Cycle Logistics

Length: This is a non-Resident, self-paced course available through the Internet. Students must pass the final examination within 60 calendar days of the start date.

Method of Delivery: Distance Learning—See “Online Courses” on page 10



PDS Code: J05